

A VINDICATION  
OF AN  
ESSAY

To the Advancement of

MUSICK,  
FROM

Mr. MATTHEW LOCK'S  
OBSERVATIONS.

By enquiring into the real Nature,  
and most convenient Practise of  
that SCIENCE.

---

By THOMAS SALMON, M.A.  
of Trin. Col. Oxon.

---

*A senis Notis, ab ! quodis mutationum mora, confusio  
clarium, substitutio vocum ? videas plerosq; an in-  
digneris, bonam aetatem impendisse huic arti, & exig-  
uum tamen profecisse, perfectos annis prius quàm ejus-  
modi lectione. Erycii Put. Musathena.*

---

L O N D O N :

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To the R E A D E R.

**M** Orefields, or the Bear-  
Garden are enter-  
tainment only for the Rabble:  
And, should I spend my time in  
wrangling, scratching, pulling  
by the hair, and such like; the  
Reader would have good rea-  
son to think himself but rudely  
treated. I shall therefore (af-  
ter I have a little caress'd my  
good Friend, and old Acquain-  
tance, The Observer) enquire  
into the nature of Musick,  
that we may a little discern  
what commerce it maintains

*betwixt its Theory and Practice; and if we can obtain them both to vote in favour of our Hypothesis, we shall have just Encouragement to engage with the Objections.*

---

**TO**



*To the Eminent and Learned*  
*Dr. JOHN WALLIS,*  
*Savilian Professor of Geo-*  
*metry in the University of*  
*Oxford.*

S I R,

**H**AVING in a Letter (of Feb. 7.)  
 received your Approbation  
 of my *Essay*, (than whom,  
 none was better able to  
 judg, whether it was agreeable to the  
 true nature of Musick) I was not much  
 sollicitous what the less-learned part  
 of the world thought concerning it.  
 But then, that Learned as well as  
 Royal Society, having in their Tran-  
 sactions (published Febr. 1671, N.80)  
 upon their Judgments recommended  
 it to publique practise; I must con-  
 fess it was more than I expected, to be  
 now so killingly convinced, and ut-  
 terly

terly destroyed by one single, though he was a very *grand Observer*.

And indeed, Sir, what ruin may I not expect from such a formidable Encounterer? who, when I hop'd to have obtain'd a little respect by professing my self Graduate of one of the most Noble Universities in the World, at one puff (*Observe p. 38.*) turns me into a *Jack-an-apes*, and all those venerable *Ancestors* we study, into *great Bears*.

Now, Sir, for my part, I had never skill enough in my life, to take a Man in pieces, and make him up into a Monkey: Wherefore I must stand staring and gazing upon my Antagonist as the Gigantick-Champion of Musick; to which purpose, he is pleased (*P. 30.*) to call himself the *great Goliath*; and his small Adversary, *little David*; though before that (*P. 9.*) it lay in his way to call me *Hercules*: And so powerful he is, Sir, in this juggle of converting, that I am confident, at the same time he is able to turn me into a *Mouſe*, and an *Elephant*.

Well, there are no hopes, but we must be undone: for we may pretend  
and

and expect what we will; 'tis impossible there should be any dealing with or resistance made against such a mighty man as this. Wherefore I am resolved humbly to request and entreat all manner of men to believe, That I am and do whatever he would have me; for there is nothing in the world does so spoil an ingenious jest, as for some silly people to get a whimsey in their heads, That I am of a sober conversation: Whereas if they will but be so kind to their own diversion, as to grant me a *Sot* and a *Cox-comb*, then would they set *Ralpho's Lice and Maggots a wrigling*, p. 5. Then we should have Burlesque upon Poetry, and Verses upon Burlesque; and that so violently, that if no body will bestow printing them, he'l print them himself; if no body thinks them worth answering, he'l answer them himself: so very careful he is for the recreation of mankind.

But, Sir, I must remember you of one thing, That when I was supposing my self, I was willing to suppose my self one of the least things I could suppose my self; that when this huge Destroyer came, I might creep into an

Augur-hole, or behind the Wanscot ; but I was afraid even to do that too ; for if you observ'd how archly he transposes and perverts my words, (p. 8.) you would take him for a *living Mouse-trap*.

However, having timely apprehensions of his coming, I was not out of all hopes to escape, did there not go before him a terrible fellow in Buff, an Epigrammatical Poetaster; this man, Sir, (one would think) dealt only with Pen, Ink, and Paper ; but alas ! he was arm'd with all the Instruments of Cruelty ; and heated with such an implacable Malice, that he sentences me ; first, To have my Hide taw'd till it was tender ; then to have the fore-said intimate Garment, my Skin, to be fley'd off whilst I yet remain'd alive : nay further, could he have got a Rime for *defunct* (which it seems was the word he designed) I must also have been eaten alive with Pepper and Salt, three days after I had been *defunct*.

But 'twas well for us, his *Pegasus* was jaded ; and so, farewell him. Next comes the *Observer* himself, whose remarks were fitter to be contemn'd than

than taken notice of; yet their Author being of so great fame and employment, I shall strictly examine each Page; which trouble I am the more willing to undergo; because after this *Observer* I suppose none will dare to make Observations; there being few men of greater Skill; of greater Malice, none.

*Observ. p. 1.* The *Essay* is, at first dash, found *abusive, false, insignificant, contradictory, and (in some parts) impossible*; which to save himself the labour of proving, he supposes; and accordingly to save our selves the labour of disproving, we suppose is not; and so far we are even.

But indeed, 'tis no great matter which is true; for the business does not lye in *pro & con*, but the way of propounding. *He has* (saith the *Observer*) *been liberal to evince the intricate and difficult way of your proceeding, by an Experiment of his.*

Now, Sir, there is no such rugged uncompliant way of evincing, as that of Experiment; for thereby things will obstinately appear just as they are. And of all other Experiments, those of Arithmetick have lest of *congé* in them.

Ha

Ha Sausbox ! Dare you prove, that we require 81 different alterations (*Essay* p. 33.) ? Now, Sir, these Numbers are so cross-grain'd, that all the Money and Interest in the world could not bribe 9 times 9 to be 79, they will make 81. And no Musician can deny, but that there may be 9 Cliffs, and that every Cliff sets all the Notes belonging to it in different places, which must at the least be more than Nine. (For though G of the Base, and one G upon the Treble, both stand upon the lower line ; yet I am confident, he so far abominates my Octaves, that he will scorn to save Nine by that shift ). So that proving them to make 81 alterations of the Notes, and my Notes always to stand in the same place, this is the *abusive rugged way*.

Whereas the *smooth taking way* had been to have invited our angry *Observer* to the Tavern, fill'd his belly with a good Fish-dinner, and made it swim agen ; then might a man have drawn forth an *Hypothesis* with acceptance ; if so be one had been cautious all the while to have acknowledged that the old way was rare, convenient, and indeed best ; but it would be an

an infinite kindness and obligation if they would practise a new one ; which the worse it was, the greater kindness it would be to accept it. *And this had been the modest way.*

But now, Sir, you know it is the way of us speculative people, if we can but once demonstrate a thing to be easie and plain, we use to accept it without further charges of entertainment. And if this won't agree with the practical, then without doubt there is something more in it than we know of, and must be put among those things which are good in speculation, but not profitable to practise.

And now, Sir, lest my Reader should be a little drowsie, you must give me leave to change the mood, and be more pleasant upon this subject of recreation.

P. 2. Do but turn over the leaf, and you will find me indebted to the *Observer* for a *Tale* ; and indeed, Sir, I was never so indebted to any man in my life ; for he hath described himself to be an arrant fool, out of good will to prevent all venter some young men from being the like.

There he stands like a frightful  
Scare-

Scare-crow stuff'd with straw, an old Hat, and a Muckinger, holding forth his arms ; See here young men ! *When I was a School-boy, &c. then was I Lucifer-like ;* which some wicked people say, was as proud and false as the Devil ; but I don't believe that was his own meaning of it in this place, though afterwards he tells us plainly, *He was wise in his own eyes ; that there was more hopes of a fool than of him.* Sir, one would long to be acquainted with the *Observer*, to know what kind of man such an *ill-begun* boy hath made. But whatsoever he is, we thank him for his good advice, though we cannot admit the force of his Argument, *That if he was a fool when he was a young man, therefore all other young men must be so too.* Which is all the pertinent application I can derive

P. 3. And now our errant *Observer* promises, To keep within compass ; where (having just finished his own Character and Education) he is pleased to insert mine : Which I will not examine, because I have already professed my self to be, and do, whatsoever he says, except in the business



ness of my forlorn *Essay*.

I must acquaint you, Sir, That it happened amongst the happenings of my life, to have to do with this *Observer*, wherein I did my do, *civilly and kindly* (as he himself confesses, *Lin. 17.*) *and several others also, were the favours he received from our Family, which he promises* (and we have experienc'd in these *Observations*) *always to acknowledg.* And indeed, such kind inclinations are as natural to him, as 'tis for a stone to tend towards its center. For how can a sweet Musical Ingenuity, be any way tainted with the least Rudeness or Ingratitude? Especially being terrified in the days of School-boy, with that dreadful Apothegm of *Lycosthenes, Si ingratum dixeris, omnia dixeris.*

But I did that which was able to cancel all Obligations. Pity! ah pity, Sir, the common fate of Scholars, who are all possessed with one incurable madness, To be ever enquiring into the reasons and nature of things. Hence came the cause of my present ruin! *My canting Questions, and my nibblings after Solutions.* And here, Sir, I am resolved to lay you something in  
the

the blame: for it was *you* that spoil'd me, by letting me know, That the satisfaction an Octave created, did proceed from an exact duple-proportion, which it ever observed, with some other such like heathenish things. And this, by my reading, got such possession of my *Pericranium*, as you can scarce imagine.

Particularly, when I was a young trader in Philosophy, Father *Galtruchius* told me in the first Chapter of his Musical Institutions out of old *Boetius* and *Ptolomy*, *Quod, voces in Musica neque plures neque pauciores esse possunt, quam septem*, (i. e.) there could be neither more nor less than seven Voices, which are the seven intervals included in eight Notes.

Not that Seven were all the variety the Ancients had: for *Aristoxenus*, who was Contemporary with *Alexander* the Great, and Scholar to *Aristotle*, tells us in his first Book, p. 20. *Edit. M. Meibomii*, διὰστημα μίγιστον, καὶ τὴν ἡμισίαν χροῖον. τὴν δὲ διὰ τῆς ἀσθράτης φωνῆς γινώσκω, ὅτι τὸ διὰ πέντε, καὶ τὸ δις διὰ τασού. That the Notes then in use, especially for humane voice, reach'd two Eights and a Fifth; which (not counting the Fifth

Fifth inclusively ) is just twenty Notes, the compass of our modern scale from *Gamm* to *Ela*.

But then this vile *Aristoxenus* did so confirm me in my beloved Octaves (the same page) where he thinks that Notes might upon their account proceed *ad infinitum*, that I have ever since doted upon them. *πάντες προσθεμένοι συμφώνη διασημαίτες τὰ διὰ πασῶν, καὶ μείζοντες καὶ ἐλάττωτες ἔσονται, τὸ ὅλον γίνεσθαι σύμφωνον. ἔτι μὲν οὐ φαίνομεν εἶναι τί μείζον διὰ σημά.* That an Octave was of such an incomparable good nature, as if you added a greater, or less, or equal consonant to it, it would still be Consonant, which he thought would hold to infinite; but will not come to pass so much as in two Fifths ( where the present division of Cliffs is ) or any other consonants of the same kind, which being added together, make a most unpleasing discord.

These Learned men, Sir, were those *Midsummer-Moons* which influenc'd my brains to think an Octave to be a compleat Cycle of Musick; which, in the greatest compass, still enjoyed it self in one and the same *Oeconomy*. And this, Sir, makes me still so mad as to think, that though my new Scale doth divide it self at every Octave, p. 11.  
yet

yet it does not *divide confusedly, or Tinker-like, instead of mending one hole, make two.*

But, Sir, these uncontrollable Proverbs are able to undo any man living. And then for his Poetry, he is altogether as invincible. From whence you see my misery in dealing with this man of Proverbs! And for *Burlesque*, if not Twin to *Hudibras*, yet certainly he is his own younger brother. But I omit these Titles, as (perhaps) only my own private Sentiments.

Come therefore (as *J. Philips* calls thee), *Come thou Apollo, thou sign of a Sun-Tavern*; come and behold the annual circuit of thy rival Luminary; see the like circulation of the imitating blood.

[ *Here insert the Diagram.* ]

*Or like a Bowl, or like a Wheel,  
Or like the Damask-Rose you see.*

Fye upon it! *Observer*, I believe thou observest, that they will not Rime, which is the only thing necessary to Verses. Therefore (good *Hudibras*) give me leave to retreat to Prose.

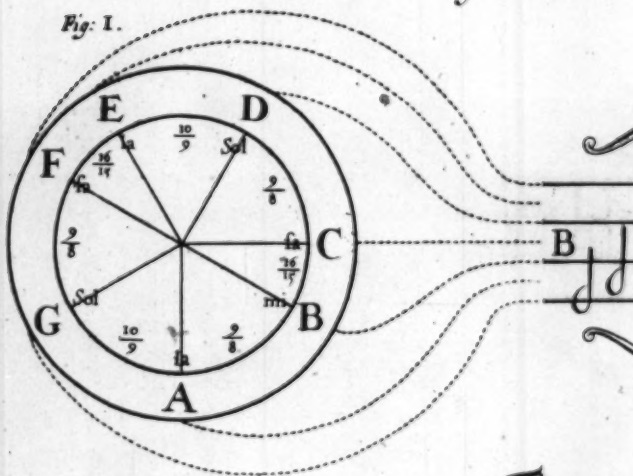
And



A Diagram

*For the Uniting of Speculative and  
rendering the Order and Proportion  
into Practick notes upon their*

Fig: I.



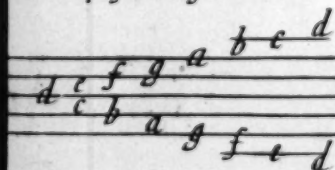
*The Cycle of an Octave*

Fig: 2.



*Two entire Octaves are con-  
tained in every Systeme by  
help of the Leiger lines.*

1. *That so soon as wee  
one Octave wee come*

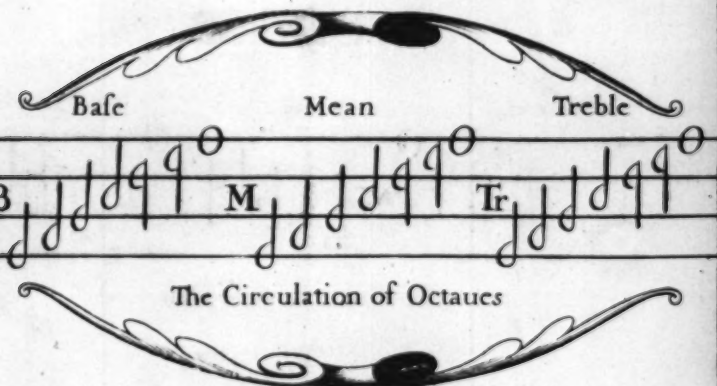


*The Double*

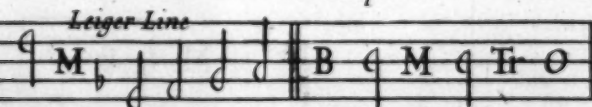


Diagramm

*ive and Practicall Musick; By  
Proportions of the Intervalls  
eir own constant lines & spaces.*



*two natural Postulata or Requisites.*



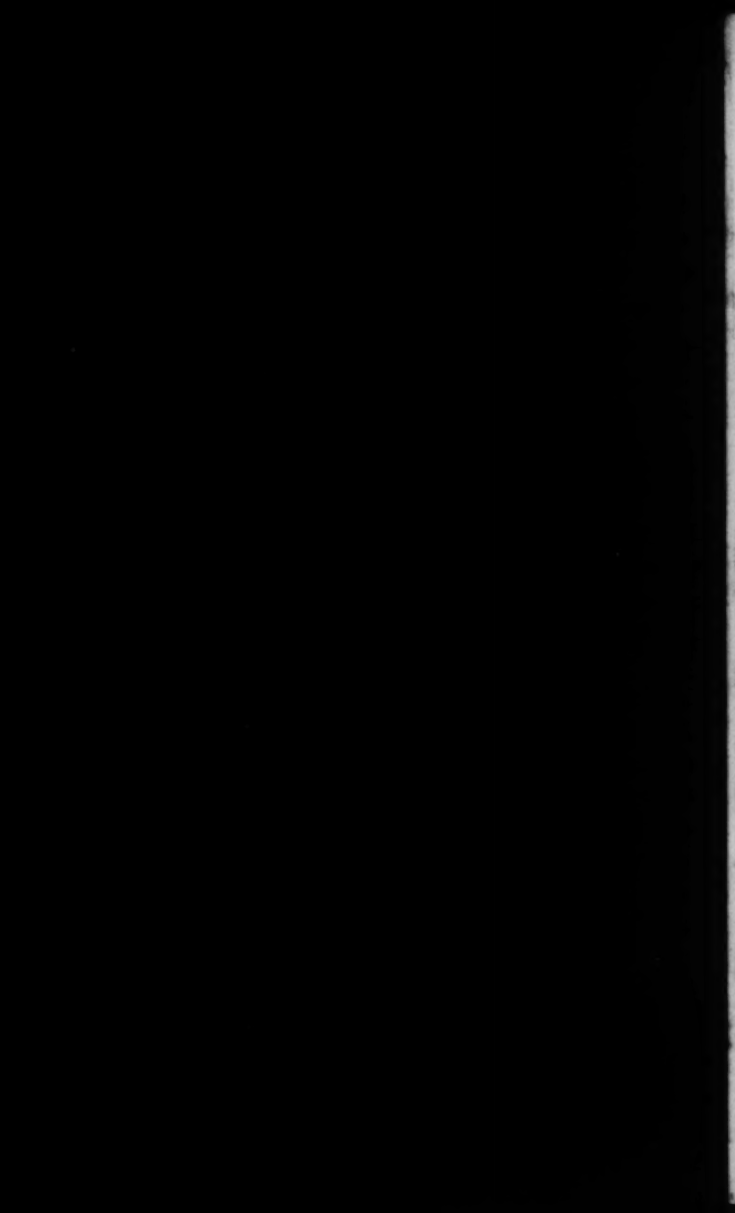
*as wee haue concluded  
ee come round agen to y next.*

2. *That a Note remayning  
in the same place with a new  
Octave letter be sung an Eight.*

*able Relish.*



Fig: 3.





And here I intend to give an account of this *Whirlegig*, because I think it does something turn and hindg Speculative and Practical Knowledg together : so that we will a little look into the grounds of Musick, and steer our course accordingly.

Mr. *Morley* (otherwise than the Ancients did) in his *Introduction*, p 3. instructs his Scholar *Philomathes*, *That there were in Musick but six Notes, which are called by those several names, Ut, Re, Mi, Fa, Sol, La,* (And why but Six, I leave the *Observer* to vindicate.) Now He, and their *Nomenclator Guido*, being both in a mistake for that, have (as some think) caused a great deal of confusion, by directing men to follow that in practise, which stands upon a false foundation, even against the very nature of the thing.

Thus they begin at every Tetra-chord, and so march up to the Hexa-chord, and then down to the Tetra-chord again; whereas the business is not done by Fourths and Sixths, but by a circulating Octave.

Which they were something sensible of; and therefore, after the two first Tetrachords, began *Ut* again at the

next Note ; that every Octave-Note might have the same denomination as well by its Syllable, as its Capital Letter.

And this the *Observer* is so exceedingly angry at (because I take some advantage thereby to plead for my Octaves ; and therefore seem to have some reason, why men should *involve themselves in my perplexities*, as he says p. 27 ) *that he thinks it rational, for the future, to take the Alphabet end-wise, even to W, X, Y, Z ; though he add four more Notes to the Scale above Ela.*

But 'tis well for me, All men are not so spiteful: Forreigners, who retain *Ut* and *Re*, have generally added the seventh Monosyllable *Bi* ; and therefore I doubt are something guilty of circulation, which is thereby brought to pass at every Octave.

But our own Countrey-men have much out-done all the Musicians in the world not only by pursuing the same circulation, but in so ordering the Monosyllables, that the same should always signify an interval of the same proportion.

Which, Sir, was first taken notice of  
by

by your self, in your most ingenious Letter of *March* 20 1664, to the *R. Society*, representing Musical Harmony to the eye, in one of Mr. *Henry Laws* his airs, rendred in *Parallelograms*.

If you please to review my *Whirligig*, you will find in what order those *Monosyllables* circulate, and how each of them is assigned to its own proportion: thus to bid one sing from the precedent Note to *Sol*, is as much as to say, Sing an interval, whose two terms are in the proportion  $\frac{2}{3}$ , and after the same manner to *La*  $\frac{10}{9}$  to *Fa*  $\frac{16}{15}$ , which being repeated, the odd Note *Mi*  $\frac{2}{3}$  comes and compleats the Octave; and this was the Note (though in another name) which our good friend Mr. *Guido*, after he had added together a couple of *Tetrachords*, wanted to compleat his Octave.

Now the Rations of any of those numbers being continued, return the proportion of the Consonant required to be constituted by them: Thus  $\frac{2}{3} \times \frac{10}{9}$  the sum  $\frac{20}{27} = \frac{5}{4}$  which is a Practical Third major; three Notes including the two intervals, *Sol*, *La*; and if all seven were continued, the aggregate

gregate would be  $\frac{18662400-2}{9331200-1}$  a double proportion.

This Account will be exact for any intermediate Concord; but that  $\frac{10}{9} \times \frac{16}{15}$  will not constitute a true *Hemitonus*, as is demonstrated by R. Des Cartes in his *Musical Compendium*, p. 32. where he gives an account of that *xiroma* which will accordingly happen, and is most clearly explain'd by that truly Noble Person of Honour in his *Animadversions* upon him, p. 76. From whence it comes to pass, as also from the difference of the major and minor Tones, that Practical Musicians tune some Notes bearing, that there may be a common respect and intercourse from any one term of the Musick, to another. So that we have in that compleat Cycle of an Octave, the Mathematical proportions united to the Practical Notes, always signifying

Sol	La	Mi	Fa	Sol	La	Fa, &c.
$\frac{0}{8}$	$\frac{10}{9}$	$\frac{9}{8}$	$\frac{15}{15}$	$\frac{9}{8}$	$\frac{10}{9}$	$\frac{16}{15}$
o: ma: To: mi: Ton: ma: Hemiso: To: ma: To: mi: Hemitonium						

Which do run round, and will run round

round ( in spite of any man's teeth ) according to the foresaid detestable circulation ; and this we may call *naming the Notes according to their proportions*.

But the Notes are also allotted to so many Letters of the Alphabet, to shew the order of their procession in the Septenary, and the distance of one Note from another, that is more than a single Interval ; for from *sol* to *sol*, may be either a fourth or a fifth : wherefore the Alphabetical Letters make the distinction, from *sol* in *G*, to *sol* in *D*, a fifth ; from *sol* in *D*, to *sol* in *G*, a fourth.

And for this purpose the Letters in the Circle are assigned to the *Monosyllables* of proportion ; which we have in the *Diagram* conveyed to the Lines and Spaces, and rendred in practical Notes, in their most natural posture ; the half-Notes being possessed of those Letters, which may properly be called their own homes.

Thus they are all possessed of their own lines and spaces ; and, if we can but withstand the furious Invasions of our Adversary, shall never change their habitations.

And now, Sir, I can't tell what to think is become of my *Observer* all this while; either he is fallen asleep by reason of these drowlie Mathematicks, or else he is stamping and staring that ever such things as these should be committed in the face of the Sun it self; and indeed I should hardly have ventur'd it, had it not been lately reported, That the Sun appear'd with a Circle about it, perhaps in our defence against this *Apollo*, its new Corrivall.

From whence I take courage to say, That this Circle doth best demonstrate the nature of the *Diatonick* Scale, exhibits to the eye its half-Notes, and shews that two whole ones stand betwixt them on one side, and three on the other, which is a *Tritonus*; and the former Semicircle (which consisted of two whole, and two half-Notes) a *Semidiapente*. These being added together, constitute an Octave, as their Ratios also do:

$$\begin{array}{r} 810 \\ 576 \end{array} \times \frac{23040}{16200} \quad \text{the sum} \quad \frac{18662400 \dots 2}{9331200 \dots 1}$$

And were it not, Sir, for making my *Opposer* stark mad with this canting-Philosophy, I would separate the Margin

gin of the Circle from its *Radii*, and by the circular motion thereof demonstrate,

1. Which are the proper assignments of all regular Flats and Sharps in any position of *Mi*?

2. Why *Mi* keeps that order, to be first in *B*, next in *E*, *A*, *D* &c. And why if there be but one regular sharp, *Mi* is there situated, and in what order all the rest?

3. To transpose a Lesson from any Key given, to any Key required; and shew which must be the Sharps and Flats in that Key?

4. For accommodation, to bring any Key filled with what regular Sharps and Flats soever, into some Key where all the Notes are natural.

Which thing, though long custom, and a laborious computation, have made some men perfect in; yet even to several expert Masters it has been a very pleasant speculation to behold those numerous Rules which a deep experience had wrought into their judgments, now (by one turn of the Circle) clearly represented to their eye, with all the Reasons and Order of the *Diatonick* Scale.

But these *Phænomena* requiring a movable Instrument more than a *Diagram*, I cannot here any further prosecute them; only assuring the Reader, That I am very ready to communicate this or any other small knowledg I have pick'd up, to any ingenious person.

I shall only add this one *Corollary*; That since in natural Keys we may have all the variety of Thirds, and Sixths, and Sevenths, or what ever else a Composer can either desire or invent with all his regular Flats and Sharps; how happy would it be for the ease of Musick, and the exactness of Tuning, if the same proportions were ever fixed to the same places of the Septenary, *i. e.* *Mi* always in *B*.

I know the present Make and Compass of Instruments, won't kindly comply with this Proposal; but surely, 'twere well worth the while for Instruments to be contriv'd accordingly, both for the excellency of Musick, and advantage of it's attainment.

For whereas the Keys of an *Harpsichord* are now tuned in a common diluted proportion, they may hereby be made capable of the most accurate exactness;



actness; and though a vulgar ear may not be able to judg the difference between a Greater or Lesser Tone; a true lesser Third consisting of  $\frac{2}{3} \times \frac{16}{15}$  or a false one of  $\frac{10}{9} \times \frac{16}{15}$  yet there will be a dissatisfaction, though it be not evident in what particular to complain, as Practical Musicians have experience when they play a Lesson in a forc'd unnatural Key; which is the same thing as if the Instrument were out of tune.

The eye is pleased with a concurrence of proportions, the natural casting of a shade, and the exactness of some Oriental Colours, whose just limits it can neither distinguish nor determine, but only satisfie it self in that whole accurate heap of enjoyment. It may not be able to descry every disordered Atome, or give an account of each little unpleasing spot; yet will it have an aversion for that soil'd impurity which is thereby caused.

Thus those little inharmonical relations only in general offend the ear, and make a kind of unaccountable resentment; but if remedied by an accurate tuning, which the stability of  
pro-

proportions would produce, we might justly expect more powerful charms from the more exact harmony. Since therefore Musick consists in Proportions, and 'tis by them alone that it has an influence upon the soul; I reckon it a most sure consequence, *That by how much the more accurate those Proportions are, the stronger must their influence be.*

But this is only to join Madness to Phrensie: What, add *Whimsy* to *Whirlegig*! I am guilty; and if the *Observer* will but forgive me this one digression, I will pardon him every thing that ever he did in his life, or ever shall do, or any of his posterity, an hundred years after his death.

Nay further, I will give him leave at present to ease his stomach with one Objection.

*Obj. To what purpose are all these Mathematical Contrivances? Will they teach a man to make Air, or maintain the point of a Canon?*

*Ans.* We are not now discoursing the power of Phansie, or how far it is capable of direction; which without

out doubt ought to be very much left at liberty to the excellent Masters of it ; but here we consider the true reason and scientific foundation according to which we ought to proceed.

And truly this is the very *Objection* I always expected ; for our *Observer* neither understands nor loves these things, any more than a Horse does *Nutmegs* ( You see, Sir, how he has infected me with an ugly Proverb ) But though this be his humour, yet there are a great many inquisitive and ( as some say ) ingenious people, who desire to know the *nature and reason of Musick* ; the Proportions wherein it consists, and the Arithmetical Laws which it observes.

These admire the glorious order of its composure, and the infinite wisdom of him that created it in so great Proportion : To what other purpose does the *Astronomer* consider the Heavenly Revolutions, and the exact courses of those bright Luminaries ? After all his study, he cannot stop the course of the Sun, or add one short day to his fleeting years ; yet he looks not upon his time as unprofitably spent, though he only contemplates, and never puts  
forward

forwards so far as the compiling of an *Almanack*.

And I know several learned men who value such a Speculative person far beyond a Practical Collector of Months and Eclipses, &c. who writes himself *φιλομαθης*, or a *well willer to the Mathematicks*; when perhaps he has scarce positive knowledg enough to determine, whether we have always the *same Moon*, or every Month a *new one*.

I need not from hence urge, how truly noble it would be for a Practical Musician, to build upon such a Scientifical and steady foundation: nay farther, there is good reason to think, that it will afterwards be of as great advantage, as it is of accomplishment to him.

For the promoting of which purpose, I should have begun at the very division of an Octave, and have given the Proportions of lesser Concorde; have shewn how we came by those assigned intervals of Notes and half Notes; but that our *Observer* is so exceedingly impatient when he is thus tortur'd with Numbers, that he will not let me tarry so long.

I will

I will therefore take for granted, that  $\frac{2}{1}$  is the Proportion of a Major Tone; because if you divide a string into nine equal parts, and stop one of them; the other eight to the string open, will (to any Musicians ear) give that sound which is called a whole Note.

Which is true of all the other Intervals and Concords, thus: If you divide a string into three equal parts; stop one, and the other two, to the string open, will be a practical Fifth; as is more at large exactly described by the accurate *Mersennus*, from the use of an Instrument called the *Harmonical Canon: Libro primo de Instrumentis Har. Propos. 4.* as also by *Guido* himself.

This is evident both to the Ear and Eye; but then adding all the Intervals of the Circle together, they composing an aggregate of a duple proportion (as hath been said) no less demonstrate the just assignment of each of their proportions, according to Mathematical consideration.

The proportions of which Notes and half-Notes being most incomparably by *English* Musicians distinguished by

by particular Names, as *Sol* always a Major Tone, *Fa* an *Hemitone*, &c. (as they are placed in the Cycle of an Octave) and these naturally circulating in a certain order, according as they are assigned to the first seven Letters of the *Alphabet*; we may by the help of those pointed Segments in the *Diagram*, unite this *Speculative* to our *Practical* knowledg.

There I find the *Sol*, *La*, &c. the Names of the circulating Proportions in their Alphabetical order landed upon Lines and Spaces; Though originally Notes were only planted upon the Lines, (as now the Letters of *Tableture* are) but then the number of them did so distract the Eye, that it was thought convenient every space should also signifie the distance of a Note from the Line either above or under it. An account of which we have from the most excellent *Gassendus* in his *Introduction to the Theory of Musick*, Tom. 5. where he tells us, that *Kircher* had found at *Messane* a Song described upon eight Lines (it seems they had some affection to an Octave) which were begun with the first Letters of the *Grecian Alphabet*.

But

But then *Guido* composing the Scale, did upon the forementioned reason set the Notes in space also, though even then the time was writ separately over the head of the Notes, as is now in *Tableture*; and they used the Alphabetical Letters, which were significative of the Notes, instead of them, (as I have in my *Essay* to the Base of the Lute, for the help of young beginners) till about Three hundred years ago *Jean des Murs* of *Paris* found out those Characters which we now use to express Time and Tune together.

You may then please to look back upon the foregoing *Diagram*, and you will find the first Note in the lowest of the four Lines; track him to *G*, which is our *terminus à quo*, from whence to the next Note in space, (which is united to *A*) is the Interval *La*, or  $\frac{2^o}{9}$ ; from which to the Note *B* transfix'd by the second Line, is the odd Interval *Mi*, or  $\frac{2}{3}$ ; and these two Intervals of the three including-Notes *G A B*, added together, constitute in their least terms  $\frac{1}{4}$ , the proportion of a Greater Practical Third, as your ear may experiment if you divide the string into five equal parts; stop one,  
and

and the other four, to the string open, will give the sound required.

After which manner you may proceed, till you have compleated an Octave; and then the very reason and nature of the thing will force you to circulate, as my *abusive, impertinent, contradictory, impossible Hypothesis* doth require; which my *Observer* doth rather scold at, than either understand or confute.

As these things are true in Speculation, so will every Practical Musician bear witness to them, That the same order of distances comes about again at every eight Notes, as in a suit of Lessons the regular Flats and Sharps are always the same in every Octave.

By which discourse I have not only endeavoured to clear my *Hypothesis*, to vindicate my Reputation for circulating in an *impertinent Octave* (which, let the *Observer* say what he will, is the very nature of Musick, both to its division, and the return of the Similar Notes into the same places) but also attempted to unite the Theory and Practice.

From whence those honourable Servants of His Majesty would be esteemed



esteemed as truly learned, as they are indeed ingenious, in this Science ; when their Judgments are as richly laden with the nature and reasons thereof, as their Phancies and Inventions are, with the ravishing pleasures of its performance.

'Tis impossible to conceive how much so happy an union would conduce both to the glory and advancement of Musick, its bonds and fetters would be taken off, when the serious Mathematician could be able to reduce his Speculations to practise; and again the aery composer could render an account of his charms, in a Mathematick Theory.

And now Sir, I find my self sunk into the tedious stile of my *Essay*. But that I may a little recover my self, and consider the sentiments of my Observer : If you please to review the North-corner of *Magdalen-Colledg-Quadrangle*, there he sets hugging himself and grinning; I thought (says he) how our young man would undo himself by doting upon his *Philosophy*, and tiring his Readers with a heavy story of *Proportions*; these are the sad effects of *Superparticular* and *Super-*  

C

*partient*.

*partient*. Whereas, if he had been at all acquainted with the winning *complaisance* of the Town, he would have entertain'd them with *Burlesque* and *Interludes*; some tickling raillery intermixt with a sly hint, and a long dash. —

This Sir, I must confess my self unable to do; and therefore I most earnestly entreat you, as you have any kindness for me, or desire of your own refreshment to read over that *awakening peal*, that *Poetical alarm*, to *Ralpho*.

P. 4. *Ingenious Ralpho!* —

And then the Observer's own answer to the same.

P. 5. *Thou self-denying Ordinancer, Why* —

And I am the more earnest to obtain this request, hoping hereby absolutely to allay the anger and vengeance wherewith he is inflamed.

For truly, Sir, if you will believe me (or any friend please to ask the Observer himself, he will find) I never in my life the least disobliged my incens'd Antagonist; but by this one thing, of not suffering those Verses to be printed before my *Essay*.

Of which unkindness I am now so sensible

sensible, that I am endeavouring all the satisfaction I can invent; to which purpose I would feign perswade the Stationers, to print them before all the Books that come out next Term: but they grumble at taking up so much paper. Though I am not out of all hopes to have them set at the beginning of the *Catalogue of Books*, because they will indifferently serve for all sorts of Books in all Arts and Sciences.

And if this won't satisfy him, I believe there are few people but will think him very unreasonable: but though this may allay him for the future; yet we are still engaged in the past attacks of his fury; especially,

P. 6. Where he would feign perswade you to believe, the *encouragement and reception* my Essay hath obtain'd, proceeded from my diligence to promote it; and this, Sir, I must not dispute, because I have promised to submit to whatsoever he affirms.

Yet it does so vex his Spleen, that he cannot but immediately vent himself by drolling upon those places of his profess'd Obligations; which, Sir, you are well acquainted with, and know them to be of such vertue and

modesty, that a person of his behaviour must needs quit them, as he hath lately done.

And this, Sir, I would by no means have written, but to shew you, that the most malicious Page in his Book may justly fly in his own face.

However I must always admire his most noble skill in composition, which almost all people have a just value and esteem of ; but that he must thence become so tyrannical, as to think all the Musick of the Kingdom depends upon his pleasure, and no man may pretend to be able to write a lesson, otherwise than he will permit him, is something more than comes to his share ; especially since there are so many ingenious Gentlemen of this Profession, that never any Prince in the world was served with more than his present Majesty.

P.7. It deserves a smile to see how arrogantly he assaults my *Publisher* (a person who for his knowledg and industry in *Musick* deserved rather his encouragement than envy) for complaining that the ancient and modern Authors were *obscure* in their Musical writings ; so that we ought to believe they

they were very easie and plain when our *Observer* read them; and we may safely believe they were: for there is a cross thing, the restraint of Languages, that makes us believe they may have layn abed and slept all their days, for any thing the *Observer* knows; who is capable of reading few more than Mr. *Morley*, Mr. *Simpson*, Mr. *Greeting's instructions for the Flageolet*; and above all, his good friend and hirer, Mr. *John Playford* (who so learnedly stiles himself) *Philo-musice*.

P.8. Now, Sir, I must acquaint you that our *Observer* hath two excellent Eyes: one to see things with, that no body else can see; and one, not to see those things which every body else can see. With this later he can look upon a printed page, like a piece of clean white paper; or else the letters will appear so double that he can't read one word.

And with this negative eye he read the four first pages of my *Essay*, where I so largely treated of the divine institution of Musick: *Which* (I said) *needed nothing else, nor could have any thing greater to command acceptance, than a challenge of its Institution from*

*divine Providence it self, who had provided a peculiar faculty for its reception. (Which I since find the eminent Dr. Willis place in some peculiar Schematismi of the Cerebellum, Anat. Cer. Cap. 17.) the early use of it in holy Writ by Jubal, and that it was a sacred means to allay Sauls evil spirit.*

After all this the *Observer* comes blinking with his foresaid eye, and admires that, amongst the many advantages of Musick, I should *not so much as take notice of its divine Use, notwithstanding the many commands and examples recounted in holy Writ to that purpose.*

Now, Sir, though he admired at me, yet I must entreat you not to admire at him; for there is a private reason (which I omit) why the *Observer* did not know *God, Jubal, and Saul* to be Scripture names: And the same reason must deserve your Charity, when he attempts a profane jest in Scripture-phrase; because you must suppose he did not know it to be holy Writ.

But this not-seeing Eye being closed, he opens his other, which is his left eye, and that looks something a squint; With this he sees such revelations and  
visions

visions as never appear'd. This was but one glance, and then he shuts it; but privately unites them both into one, which, like *Polyphemus's*, is placed at the very top of his fore-head. By the advantage whereof,

P. 9. He looks beyond Sea, where Musicians have *much respect, large rewards*, (as no body that I know of ever contradicted) *and many advantages to enrich themselves (if they please)*. And at home too, &c.

I must confess, Sir, within the *narrow circuit of my progress* (as he says) I was scarce so much acquainted with any, as the *Observer* himself; and, I know not what was the matter, it never yet *pleased him* to purchase an Estate.

Though I have since been acquainted with several that live very nobly and gently upon this Profession; as they may well do since his present Majesty hath augmented the revenue to the Gentlemen of his Chappel almost double: Yet this being procur'd by one whom our *Observer* envies, and hath rail'd at in print; 'twas a thing that could not possibly be seen with either of his eyes, though it was the just acknowledgment of his Prince's

most gracious munificence:

I must here, Sir, most humbly entreat your pardon for troubling you with these late Pages, which are impertinent to my design; and I would not have inserted them, but that I was unwilling to leave any one side unanswered; as also to satisfy the Reader, that what I omit of such *stuff* for the future, may as well proceed from his ungrounded envy and malice, as what I have at present examined.

And now after so long an entertainment of his *Wit* and *Drollery*, his *Burlesque* and *Battery*; The *Observer* comes to his business and presents you

P. 10. With the Old *Gamut*, *Sanca Panca's Pudding* (as he likens it): and truly, Sir, I am so much a Scholar as to think it fitter to be eaten than learn'd without Book.

Which, if you please to review according to the *Observer's* own delineation, more plainly discovers in every Column that old mistake of making *six* notes to be the compass of *Musick*; as also the beginning every sett of Syllables (when my *abusive* Octave did not spoil their sport) at a *Fourth*, which *Des Cartes* at the end of his 6. *Chap. Mus.*



*Mus. comp.* unkindly calls, a certain monster, or deficient, imperfect product of an Eight.

Neither is there any thing in those names to express the true nature of Musick, but the circulation of the Capital Letters, which is the only thing the *Observer* thinks fit to be altered, to escape all suspicion of my perplexities.

I am sure it is false in our present practice to subscribe (as he there does at the botom of the Scale) *B naturalis*, when *Mi* stands in *E la mi*, which proceeds from that unnatural deduction of Six Notes.

And that this is an old obsolete mistake, we have the honoured Mr. *Simpson* of our opinion, *Comp. p. 113*. For that *B naturalis*, whose *Ut* stood in *C*, being distinguished from *B duralis*, whose *Ut* stood in *G*, (which is an excellent piece of unuseful knowledg, that I believe few men now trouble themselves with) was called *Properchant*; so that the six Notes did not reach so high, as to touch *B* either flat or sharp; but in our modern Musick we acknowledg no such thing as *Properchant*, every Song being of its own nature either flat or sharp. So he.

Which

Which shews, if the *Observer* had but any kind compliance with the judgment of him whom he pretends to esteem, that he need not think there is so great vertue in those admirable *charming words of the Gamut*, which I suppose produce their effects by being seal'd up, and carried in the pocket; though I would entreat him in his next to open them, and shew their operations; for without doubt, Sir, he intends to do something; having resolved in his Conclusion, *pag. 39.* that he will *vindicate this old Scale, except he meet with a better*; (which I am sure, Sir, you know to be impossible) so long as there is any Paper or Ink in the world; nay so long as he is able write his own Name.

A Champion so faithful, so trusty to his cause, that I believe all *Europe* is not able to match either his constancy or valour; a subscription, Sir, worthy to be registred in the Chronicles of the most bloody Warriors, to subscribe ones self so long as one is able to subscribe ones self, *Sir, your Servant* is vastly more couragious than barely to subscribe ones self, *Sir, yours till Death.*

Having

Having duly admired the *Observer's* so brave resolutions; we next consider the Cliffs, and the Lines upon which those powerful words are placed; concerning which I will give you the best account I can find.

That because it would be too distracting to the eye, to have always before it *ten* or more Lines and spaces, which the whole Scale did require; Musicians did by assigning a certain Note (which they call'd the Cliff-note) to one Line in a Staff, shew by consequence which five or six Lines they had taken out of the Scale for the use of that part, wherein they were concern'd; which caused all those variations and difficulties I have complain'd of, and must still have been endured, had there been no remedy found.

But since 'tis the nature of Musick to have a *circular* as well as *progressive motion*, which former doth so influence all composition, that 'tis impossible to pass seven Notes without considering the next seven to lie in the same posture; I thought it would be worth my while (that I might save so vast a trouble) to fix them, according  
to

to their own circular nature, always in the same lines and spaces, as you may see in the preceding *Diagram*, where *G* returns naturally into the lower line, and the half notes (though you do suppose regular flats and sharps) stand in the same place in all Octaves.

And I can at any time take what Notes soever are useful to any part, by those two only *Postulata*, which you may see are agreeable to the nature of the thing; and in answer to the Objections, will be further evident.

### *The Objections Answered.*

Pag. 11. Thus having vindicated my new Scale for confusedly dividing it self at every Octave; I proceed to the Observer's grand Objection. Of making the same note or tone to be in several places at the same time; and this is attended with so great a retinue of Observations, that the Reader may easily perceive, here lies the stress of the controversy, and that too in the Ob-  
servers

*server's own opinion: immediately adding, and from this I make my exceptions against his whole Book.*

Now, Sir, do I entirely love the *Observer*, for pointing out this nicking evidence upon which all our business depends: In some loose Writers we might have gone hunting and hawking, and only found some scattering Objections; but here my most kind Antagonist hath brought it to an head.

Wherefore stand fast *Essayer*! methinks I feel thy pillars tremble, and the whole fabrick of thy Hypothesis shake; But I'll pull down the *Observer* in my ruin, and crush him with five times the weight of his own Objection.

*That way which requires an absurdity five times over, is much more to be exploded, than that which requires it but once.*

*But the Observer's old way does require the same (condemning) absurdity, five times, which the Essayer's new one requires but once: Therefore the Observer's old way is much more to be exploded than the Essayer's new one.*

The

The second Proposition needs only to be proved, which is done in this following Scheam.

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Now

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# A Scheme

To demonstrate, that by the movement of the  
*Old Cliffs, G sol re ut, A la mi re,*  
*B. fa b mi, C sol fa ut;* are in five Different  
 Places at the same time

3 Vnisons 2



The Essay shows them but once Different  
 when they stand irregularly upon their higher  
 lines out of their own Octaves as the Observer  
 Sheweth in this following Scheme

Vnison



Now with all my power I have endeavoured rightly to understand the *Observer's* chief Objection, laid it down in his own words; and if he gets any thing by it, let him save his *Lapis calaminaris*, and put it in his eye.

Here I expected he should have quarrel'd me, for placing *G sol re ut*, in the line, which he does in space: but that appears so natural in the *Diagram*, and I had so pleaded the justice of it, *Essay p. 45.* that he takes not the least notice of it.

If he was angry for setting the same *G sol re ut*, in the Leiger space, which would naturally fall in the line; he must be extraordinarily commended for his kindness, who out of meer love and tenderness would not mention one tittle of that chief dislike.

But those Notes upon the Leiger lines being *exoticks taken in only strangerwise for their trade, and commerce*, (as I answer'd to this almost same Objection, *Essay p. 73.*) I suppose he was satisfied 'twas not considerable.

And it seems more compliant with the nature of the thing: for a stranger to wear an unusual Garb in a Foreign Country, does not make him less known



known but more exposes him to observation.

That we may take things in a little more dependant order than he has laid them down, I must consider his excellent contrivance of a double relish, as having some affinity to the grand objection; but here our *Observer* is become inventer, that if he cannot find things ridiculous he may make some.

P.15. Which, whosoever reviews will without doubt think the *Observer* and all the things in the house stood upon their heads, when he found it out, but the best jest is, it positively contradicts, what he said before, so necessary is it for every man that observes truth, to be ever mindful of what he hath once said; as the learned *Lilly* of old advised.

*For if I do allow G sol re ut, to stand in two places, why doth he not write the double relish, as 'tis in the Diagram? If I do not, then what becomes of his grand Objection which supposes it.*

P.12,13,14,16. All that remains is but a small *Pickaroon* with two Guns, which are so far from doing any exe-

D

cution,

cution, that they do but more clearly discover my method to the Readers apprehensions. These I have described as the two only requisites of my *Hypothesis*, in the second figure of the *Diagram*; and are so far from being Objections as that they appear most natural Conveniencies.

The first, which he mentions, (p 12. and 13.), you will find to be according to the very nature of Musick; which having concluded one Octave, begins the next, and continues it in the same posture, it did the first. Though there is so great assistance given by the Leiger lines; that as occasion is given but very seldom thus to alter the Octave in Vocal Musick so in instrumental, the Octaves (especially upon the *Harpsechord*) lie so uniform, that 'tis done without any trouble.

And, as it would be easie to instruct a Scholar, that after he has proceeded to *F* in the fourth, by the notice of a new Octave letter, he is to go forwards with the first line agen, and the notes in their same former distances, so this method would be indeed scientificall, and would make him not only practise according to the right rules,  
but

but also give him to understand the true nature of Musick, which the old Scale of *Gam-ut* did in no wise signify.

The *Observer* hath been pleas'd, in this twelfth page, to write his Notes with *two* ascitious lines underneath; and he might, if he pleas'd, write them with *six*: but I never take any more liberty to maintain my Notes in their constant places, than he requires to his alterations, *i. e.* one line over or under the five, when occasion is.

If it be requisite to proceed very far into another Octave, we change the letter, and write (that which he calls) the new-found reformed way, but, according to the *Diagram*, appears to be the most easie and natural method of Musick.

P. 14, 16. The other reputed difficulty, he hath contriv'd a Canon on purpose to demonstrate (which is no more than I had a particular Cut for to explain *Ess. p. 39.*); and 'tis this, which you may see in the second figure of the *Diagram*, that, if I rise or fall eight Notes, I continue the second Note in the same place the first stood, only with a different Octave letter.

And what more natural? than for two Octave notes; which are so much the same, and have the same equivalent respect to all other Notes, should stand in the same place? And what more easie for the Practitioner's eye to apprehend? Certainly 'tis far more easie to be known, when the Octave-Note stands in the same place with the letter prefixt, than when he must count three lines, and three spaces from the first note, where (according to the *Observer's* way) its-Octave must have been placed.

And if he contrive a thousand *Canons*, he can bring me to no other absurdity than these two natural requisites, the conveniency whereof I think more self-evident than any thing in the *Guidonian Scale*.

P. 27. For the ten last pages which contained only a Canon to shew the necessity of that, which might better be done otherwise. The *Observer* may now be pleased once more to observe, that, As by the *Postulata* in the *Diagram*, we comprehend any part of Musick which can be assigned; so by the assistance which the Leiger-lines afford us, it may done without any great

great inconstancy to the letters of our beloved Octaves.

For, we may ascend six Notes above our Octave, *viz.* from *F fa ut*, to *D la sol re*, and descend four from *Gan ut* to double *D sol re*, without altering the letter; as you may see in the third figure of the Diagram, where every five lines are made capable of two entire Octaves.

That any man may satisfy himself (however our *Observer* would gull his implicate Readers) our Method is, not only most facile, but also agreeable to Musick of the greatest compass; for in the Lute and Organ which require two systemes of lines, we have before us as many lines and spaces as will contain four entire Diapasons, more notes than are in the whole Scale of *Gan-ut*.

If he still grumbles that Scholars can't tell which is a *Contratenor*, or *Lower mean*, or the like; for them that can't understand the nature of the thing, let there be writ over them, *This is a Cock, and that is a Bull*; which I take to be an easier remedy than to learn all the variety of old Cliffs.

And about the confinement of *Mi*, with

the avoiding regular flats and sharps, I have already delivered my judgment in the description of my whirlegig, which I shall not now repeat.

P. :8. The next thing which he confutes, is my argument, for proving the hard names of the *Gam ut* useless, viz. that they cannot declare any note to be in a different Octave, because those names are not different in every Octave. This is false (saith the *Observer*) for the *Cliffs* and *Scale* distinguish them, by Capital, Single, and Double *Italick* Letters. Very good! The *Cliffs* distinguish them, and therefore we must learn without Book, those names which do *not* distinguish them. Sir, 'tis as excellently argued, as if the *Observer* should prove that all men must wear different shoos, because they are distinguished by their faces.

Now to allay my hopes of the least success, he here insinuates a Question, so very profound and unaccountable, *That there be many hungry Gapers, who remain seekers, and I* (saith he) *with them*. The thing is this, that by beginning my Octave with G, I contradict that *Classical Horn-book* he learn'd, which began (when he was a School-boy

boy with great *A*. Now Sir, though this was haied in, only for an opportunity to shew his education; yet rather than my *worthy neighbour* shall suffer for his suggestion of the *Dominical Letter*, I will insert as much as I know of the matter.

The reason why I began my Octave with *G*, was, because the general practice of Musicians is so to do: which I profess'd never to contradict, but when there were *very good advantages to be gained thereby*. (*Ess. p 41.*) especially mine being a circular way, it was no matter where I began, so long as the letters went round in their own order.

But the Original I suppose was this, that *Guido* in the year 1024. recovering Musick out of its dark ruins, (which those unhappy times had caus'd) compil'd that Scale which we are now discoursing about: So that the assignment of the Alphabetical letters being altogether in his power, he began the *ramut* with the first great letter of his own name, that he might perpetuate his memory to posterity.

Which (if we considet the nature of the thing) will appear very reasonable;

for though *G* have the first sound assigned to it, yet *A* is the first Musical interval; there being nothing of Musick, without comparing two sounds together; that *G* is in truth only the term from which the sound *A* arises, as *F* to *G*, &c. which may be easily perceived, by the circle in the Diagram. I was once tempted to think, that *G* had been imposed by the *Greeks* themselves, because of its sound and figure in which 'tis written; that they having assign'd the Letters to the Notes; as, *Βήτα* to the *ὑπάλη ὑπάλαν*, *ἄλφα* to the *προσλαμβανομένη*, which was a long-time their lowest note; did, when they added the *ὑπερπροσλαμβανομένη*, impose *Γαμμα* to that, because they would not alter their former assignation. But then *r* being the third letter of their Alphabet, and not the seventh as in ours, could no way suit the Nature and Designs of their Musick.

P. 29, 30. The next business is to shew that other design of the *Γαμμα* words (for he will not now assert them to demonstrate the place of *Mi*, to which purpose I had prov'd them insufficient), *They consist of Syllables purposely chosen as most proper for opening*



*ing the month, and putting forth the voice, &c.* Though there is nothing more known, than that *Guido* took them accidentally out of the hymn for the service of *St. John Baptist*: And if *Dum queant laxis* had begun that Hymn, then the very *Dum* would have been that widening Syllable to have open'd the mouth for the first grave tone.

But to consider them; first of all comes the incomparable *Ut*; which if I try, *abruptly forces my tongue against the roof of my mouth*, (as he describes an inconvenient Syllable) but I don't know how 'tis with the *Observer*; perhaps his tongue is hung with the wrong side upward.

These (*Ut* and *Re*) though *some have laid them aside, yet some* (says he) *have not*. But I must confess, I hardly know them used by any, but the North-Country Wagoners, neither do they use them as good to put forth their voice, but to stop their Horses.

Foreigners do indeed still use some fictitious words composed of them, but they are so sensible, how unfit ours are for to express the nature of Musick, that they have alter'd the composure,  
and

and writ *F ut fa, G re sol ut, A mi Lare*, &c. according to *Gassendus*, *Mersennus*, and others. But he says, *It is not the Name, but the Thing he contends for*; and therefore I would have these insignificant hard names laid aside, that we might the sooner come to the enjoyment of the thing it self.

P. 31. Some unknown misfortune having spoiled our *Observer's* eyes; He is now resolved for the future to be guided by his *seeing. feeling, bearing, and understanding Nostrils*, which is a most excellent expression to discover a further advancement of his Learning; for had he not been promoted from the foresaid *Hornbook* to his *Accidence*, he could never have known those enlightning *Epithets* of a *Noun Substantive*.

And the first thing his united Senses and Understanding discover, is, That I begin to learn the *Monosyllables* from an *Hemitone*: *Strange! Composition begin or end with half a Base!* Something must be said, though I have often told him, That those Syllables are not learn'd for any *aery* pleasantness in themselves, but as Rudiments, whereby we may distinguish Notes and half  
Notes

Notes, both single and united, in greater Intervals.

For which purpose, there is good reason to think, *they* would be the more serviceable, by how much they had the less of airiness in them; they would thereby less affect the Fancy, but make a much deeper impression upon the Judgment, when those Notes must be pick'd out of the Book by the Understanding; which if they were placed according to his compos'd order, would flow forth like some common Tune from an aery apprehension.

Wherefore it seems rational, not only to begin at *Mi* or *Fa*, but at any *radius* of the Circle, that the voice may set loose, and sing an half Note when it pleases, with a flat third, or sharp seventh, or whatsoever comes to pass in the *Diatonick* Scale: and this will easily be done, if we begin at each Note, and sing the *Cycle of an Octave*.

In doing of which, it would be very advantagious to sing *Fa* more broad (like the *Germans*) that it may naturally form the mouth to a flatter sound than *La*, which is composed of the same Vowel, but is pronounced a whole Note.

But

But all of a sudden, our *Observer* is grown so exceeding jovial and merry, one would wonder what happy occurrence had so revived the *Cockles of his heart*; nay, and lest the extasie should overcome his belief, he says, he is as *sure on't as two Two-pences make a Groat*. Well, the joy is this! *Madam Mi is gone a rambling out of her Apartment, and turn'd Queen*. And as sure as four Two-pences make two-Groats, let her ramble into all the Apartments about Town. she shall never want a Gentleman-Usher so long as the *Observer* continues able to man her.

But hear, O ye Pupils! I have reported, you are obliged to *learn the distances backwards and forwards*.

In this (the *Observer* says) I am so *horribly out, that 'tis impossible for any flesh to sing, play, or compose without it*.

This I said, and this the *Observer* says with an impossibility it should be otherwise: so that there is no difference betwixt us, but only he is resolved that I shall be *horribly out*, though I say the same thing he does. For without doubt a man must be able to count his distances: but the question here is, Which is the most difficult or easie way,  
and

and which of these two ways is to be chosen and used.

P. 32. The *Observer* can no longer conceal his resentments against any propagating the knowledg of Musick; and because I have but transcribed the 75 page of Mr. *Simpson's Compendium* (where he carefully assists the *Invention*, and provides against the *Lapses* of young beginners), the *Observer* says, I abuse that person whose memory is precious among good and knowing men. Whom indeed I greatly honour, for that double accomplishment of his *exemplary life*, as well as *excellent skill*; and know nothing more necessary, than to commend the former to my *Observer's* imitation; who would not have had him stained his credit by instructing *Novices*; which was his crime to do, and my abuse to take notice of.

However, I shall still dare to assert, That because the Chords in different Cliffs were intricate to discern, therefore he interposed the Figures; which are needless, according to my contrivance of Octaves, where all Notes are situated, in all parts, the same.

And though some men may, by long custom

custom and experience, be excused from that trouble; yet even *their* apprehension would be much more quick and clear, if they always proceeded in the same united method. But should it not, I have as much as I intended, in the place he cites, *viz.* That it would be very advantageous for young Composers; which is evident, if it may but be granted, That what remains always the same, is much easier to be known, than what appears in many different positions; as the Notes do according to him, where in every part they are different, and have a different Cliff to distinguish them. And this is as much to the purpose to persuade a beginner to learn my way, as (to use his own comparison) if a Mother should teach her Child, that a great black *B* stands for *Block-head*. And so I leave him and his little four-legg'd School-fellow together at their Books, one a thumbing, and the other a gnawing them.

P. 33. At length he comes to consider the applying my *Essay* to Instrumental-Musick. And here 'tis worth the while to read over the Paragraph, that you may see how he holds his  
foot

foot in his hand, without being able to determine which way he should take.

Wherefore he once resolves, *That I do not understand the French Musick; that I mistake their placing G in the lower line, which is only for dancing.*

And indeed, if this was not a mistake enough to make me ridiculous to the whole world, the *Observer* writ his Book to little purpose. O hold my sides ! That ever fellow should write an *Essay*, and mistake *Toes* for *Fingers* ! Think *that* intended for the *hand*, which was only contriv'd for the *Policy* and *Government* of the *foot* ! Certainly never any man, but he whose brains were sunk into his heels, would ever like this mad dancing method.

And let this be resolv'd upon as the Answer for the *Violin*, though he thinks it fit to strengthen it with one period more ; That though the *French Musicians* have thus debauch'd their *treble-Musick* to dancing (as I think our *Observer* hath done much worse to *Ribaldry*) ; yet all other parts they write as we, and the rest of the *Musical world*. And 'twas well for me this drop'd from him, or else he had prov'd my whole *Invention* to have been an hundred years old.

Now,

Now, Sir, let us careſs the loving kindneſs of our *Obſerver*, who be-  
 thinking the ſtorms and bazards of the  
 Sea, will out of his meer goodneſs  
 contradiſt himſelf, that he may ſave  
 us the labour of a Voyage into  
*France*.

For that which he juſt now aſſerted  
 to be done there *only for Dancing*, has  
 alſo (as he ſays) been done at home by  
*Dr. Tavernor and his Contemporaries*, ſo  
 long ago as the very, very time of *King*  
*Henry the 8th*. And Sir, I am apt to  
 think, that all thoſe were not Dancing-  
 Maſters, and compoſers only for the  
*Cat and Fiddle*.

Wherefore if this won't do, he will  
 revenge himſelf with ſuch a piece of  
 ruſty malice, that my reputation muſt  
 needs feſter, gangren, and be quite cut  
 off after it; for he can produce *their*  
*compoſitions with that very individual*  
*G in the very ſame line, where I would*  
*make the world believe, I invented*  
*it*.

And this cannot but pleaſe him, for  
 ſo long as an *impertinent Scholar*, a  
*ſtarter of queſtions, a nibler at ſolutions*,  
 did not invent it, 'tis no matter who  
 did; all's well, and ſo well, that I be-  
 lieve



lieve my *Observer* can for the future produce some composition in some *Cliff*, in some King's reign or other, that has any letter of his *rational Alphabet* in the lowest line.

But how little this is to the purpose, any one may perceive, who considers my design was the perpetual fixing the same letters always in the same lines and spaces, whatsoever they were, though I was more willing to place *G* in the lower line, because it was so before in the *Base*, and conveniency had perswaded many to use it in the *treble*.

So that this is the invention I pretend to, the dividing of *Musical Orthography* into *Octaves*, (which was before parted into *Cliffs* of five *Notes* distance) that all the *Notes*, in all parts, may stand in the same places, to save the trouble of learning their perplexed variations; and to give every *Scholar* a propriety in all sorts of *Musick*, that he may play from the writing of any instrument, as if it were his own; which I have experienc'd before several judicious persons, by playing mutually from the same common character, either upon the *Lute* or *Harpsechord*.

And this very thing which our *Observer* so abominates, I do undertake, he shall ( for one Pint of Wine ) confess reasonable to be done. For if one that has always learn'd in *G sol re ut* Cliff, should beg a dispensation to transcribe some of Mr. *Playford's Psalms* from the unusual *C sol fa ut*, into his own domestick *G*; that reduction of Cliffs ( as they call it ), would without doubt be granted, upon such a valuable consideration.

Now all the difference betwixt their reduction of Cliffs and my Essay, is, That my Notes are always ready reduced, and found in the same order, which *they* are put to the trouble of reducing upon every new occasion; and they grant it to be done, only to help the infirmities of Learners, which I arrogantly deduce from the Principles of Musick.

P. 34. Next comes *Madam Viol*: for our *Observer* will needs have her a distressed Lady, and professes himself able to play nothing, but *John come kiss me now*; and if she turn away her head, *Fortune my foe*. For my part, I cannot help his inclinations; If he should fall in love *with the top of a Bedstaff*; 'tis nothing to me. But

But though he is not able to enlarge his captivated Fancy above those two amorous Ayres; yet I know many persons of good repute, that play excellent suits of Lessons, upon this very same ridiculous, plaulible, healthy, sickly tuning, as he is pleased to put a parcel of words and likenesses together.

And I must tel him, that those foresaid persons play every suit entire of Lessons upon the same key (as I suppose also the *Observer* does upon every Instrument but the Viol, where he is put beside his byass by the coy Lady ) so that there is no need of tuning the strings up and down, as he would make his *Children* and *Underlings* believe.

*But O sad misfortune, in so great an adventure! The Lady is both pinnion'd and fetter'd. Before, she had a fair liberty; now, she is confined to One.* Just as if she had all on a sudded married, become honest, and shut the *Observer* out of doors. O sad misfortune indeed! *Heretofore you might play upon all keys alike, (i.e.) well upon none: for the strings were all (except one) tuned fourths asunder; and whenever struck open, made a horrible discord and*

jumble. Whereas in the Confort-Lyra tuning propos'd, we have the use of those two most eminent Keys *G* and *D*; in the former whereof you may naturally have a *Greater*, in the later a *Lesser Third*, without so much as the least altering any one string; which conspiring harmony will (as I said) with an *unstopt freedom*, eccho forth at the end of every Lesson; that you may, at the same time, enjoy *the melody of the Lyra, as well as the intelligence of Notes*.

But I wonder our *Observer*, who never durst so much as pretend to the Viol, should so boldly fall upon our *Publisher*, whom he acknowledges a *profess'd Violist*, and whom he may justly reverence, both for his years and knowledg. But attend his words: *'Tis strange that he should be ignorant of the impossibility, &c.* And I think so too, if there had been any: we may assure our selves, that a Master of so long experience would never have commended impossibilities to the world.

Well! 'tis no matter for that: here's an argument, Sir, commands attention. *The example he sets down was made for Children, therefore (it seems) the Universal Character can reach no farther.* Though

Though this Argument had one leg in the Parenthesis, and t'other out; yet I am resolv'd it shall not escape our consideration. But now, Sir, we have taken care the Argument do not escape us; our next business is to consider, how we shall escape the Argument.

I first thought to deny the Antecedent, because few men play a greater compass than was contained in that Lesson; but then doubting that cogent Illative (*it seems*), I thought the Consequence might be a little lame, especially considering the *Observer's* foresaid *Hornbook*, in which are contain'd those very same 24 Letters which constitute the most Learned Books in the World.

Which being taken notice of, may save us from any such sudden violent Conclusion, as he would make; That because the Rudiments of Octaves are advantagious to young beginners, therefore ever after they must be useless, and an hindrance.

The next thing is an Appendix to his Objection *Le grand*, which I have

answered in a particular *Scheme*, that demonstrates his way incumbred with five times the same inconveniency. Only at the end of it, he entails a small surmise of his own: for whereas I never required or used more than one ascitious line over or under the Five; he will have a *speedy commission for the raising of three, four, or more*; as though he was in all haste making a Ladder to climb the three-square place of preferment.

But at last finding he had made only a little wrangle upon the Viol, and being angry the Stationer had already sold more of my *Essays*, than his durst venture to print *Observations* upon them; He humbly supposes *the Author has bought them all himself*.

Well said Colonel *Coker*! But though the Author never bought any of his own Books, yet he has several of the *Observers*, and given them to his Friends, that they might see what sort of Arguments this great Opposer is forced to use, and how exceeding angry he is, by how much he has the less to say.

P. 35. *Rattle Bladder, rattle*. Now comes Harpsichord, Virginals, Organs; which the Observer asserts to be complete

*pleat Consort if rightly managed.* And therefore 'twas, Sir, I suppose the little Gentleman-*Jack-an-apes* allowed them two staves of Lines, which contain four whole Octaves, and they are able to fill any *blew-bladder* in the world.

But this is only a little Proverbial-raillery of the *Observer's*: We will therefore consider the nature of those Instruments. And here I must lay down, That except a man hath been given very much to *Span-fartbing*, he never embraces above eight Notes at a time with one hand, and they may be found in less than the same number of Lines, which the *Observer* requires. Though by the way I must mention the difference; that sometime his Lines and Spaces signifie one thing, and sometimes another; and each hand pester'd with a distracting-difference; in mine, they are *both* and *ever* the same.

Ay! but good Sir (says the *Observer*); you can't carry on your Lesson perhaps, *without the hopping and skipping of your humble servants B M T upon all occasions.*

Now for the honest *B M T*, I have commanded them to signifie *fopdoodles*,

*fools-caps, sancinesses*, or any thing else the *Observer* pleases to have them, except *bandry*; and that, I will in no wise allow them to signifie: which if ever out of compliance with the *Observer*, I should be perswaded to; yet I charge them that they signifie so only in his *own private meditations*.

Here, Sir, I must acquaint you in favour of the foresaid honest *BMT*, that t' other day I met with a curious pair of Phanatical Harpsichords made by that Arch-Heretick *Charles Haward*, which were ready cut out into Octaves, (as I am also told he abusively contrives all his) in so much that by the least hint of *BMT*, all the Notes were easily found, as lying in the same posture, in every one of their Octaves.

And that, Sir, with this advantage, that so soon as the Scholar had learn'd one hand, he understood them both, because the position of the Notes were for both the same.

I must confess that by reason of so great a distance, I have not yet received my Letters from *Rome* and *Vienna*, that I cannot positively assert what Signior *Froscobaldi*, or *Froberger* have done; but 'tis generally believed that  
even



even their Organs are disposed after the same Heretical manner.

But for Monsieur *Samboneer*, as being not so far from home, I am fully assured his Harpschord did comply with the Octavian *B M T*; insomuch that he could never be perswaded in all his life to put a Sharp between *B* and *C*, or *E* and *F*; but just, in the same position as our Whirlegig, he runs round with an half-note, and three whole ones; with another half-note, and two whole ones; and then the first circulating half-note again.

What a base fellow was this Monsieur *Samboneer*? I am confident this Monsieur *Samboneer* shall never agen be put into the Catalogue of *European Organists*, when the *Observer* next musters them, to give me battle; which alas! Sir, how should a feeble *Essayer* withstand, especially when Dr. *Bull* is plac'd in the front.

Yet this the *Essayer* resolves to assert, and then betake himself to his heels, that these foresaid great men never made any thing in their lives, but might be writ with a clear facility according to the *impossible Essay*.

But

But perhaps you may look upon this only as a bold assertion; I must therefore acquaint you, that my Stationer, to vindicate us from Mr. *Thetcher's childish lessons* (as the *Observer* calls them) does intend this long vacation to print one of the best and most difficult suits of Lessons he can meet with, according to our *contradictory Essay*.

Well, but for all this, the *Observer* knows a thing will do my business for me; and 'tis a thing, Sir, so pertinent to the matter in hand, that it requires your serious consideration; the *Essayer* is naturally of a *rubical complexion*, and was it ever known that a man of a rubical Complexion ever writ good Essays?

Now, Sir, you see what a malicious Caviller he is, a vile fellow, to endeavour to spoil my Marriage! Perhaps my Mistress might never have seen it; *for Love* (the Poets say) *is blind*: Or else she might have taken it for a modest blush, but to the very abyss of envy, he tells all the world, *I am not capable of blushing*.

What shall I do in this case? If I  
quote

quote Dr. *Lower de Sanguine*, who says, Such persons, by that errancy of the blood, have a greater confluence of spirits to the brains, and therefore may be capable of writing Essays; perhaps he'l contemn *him* as too much a Scholar, and too little a Musician. Wherefore to save a further trouble, he may e'en reflect upon himself, and he'l find good reason to pardon me, since *nature* is much more excusable, than *vice*.

P.36. Comes our *Imperial Lute*; in which the *Observer* hath no more reason to be positive, than if he had been treating of the *Simick* or *Epigonium*; yet thus he enters,

*Alas poor dumb thing!* all that innate sweetness and excellency the *Effayer* talks of, is but *as absolute a tale of a tub as ever wanted bottom*. Nay Sir, and this *bottom* he most maliciously explains to be the very substantial *bottom of Truth*: Which is in plain terms to call it a Sounder, a flam, or a Cokerism, or whatsoever else he pleases to call it, when he begins his calling agen.

Now who could expect the *poor dumb Lute* should receive any kind usage from an *Observer* that begins so terribly? But let us be content, and  
we

we shall hear more presently ; for he will open his budget, and draw you forth, *That true excellency which is peculiarly hers , which is the making a compleat consort with the stop of one hand only, which he, (the Essayer) notwithstanding his gay commendations, has absolutely rob'd her of.*

O brave Lute ! 'Twas well for thee thou was not dead before the *Observer* was born, and without doubt this new reveal'd excellency shall keep thee alive for ever for the future. We will therefore a little understand this treasure of excellency.

A *Lutinist* hath commonly upon his left hand four fingers; all these four are upon great and eminent occasions made to *stop a compleat consort*. Hold it fast, here's the excellency, which I doubt is something in danger.

For the Harpschord pretends to stop twice as many Notes with both hands, whilst thou poor dumb thing can use but one hand for that purpose, and the thumb too only becomes an insignificant supporter.

Nay, and this prating Harpschord will pretend to stop and strike these Notes with the same hand, at the same time,

time, which the *poor dumb Lute* cannot do; but *making a compleat Consort with the stop of one hand only*, remains a *poor dumb thing*, till 'tis struck with the other hand; and then it becomes a *speaking thing*, like its imitating *Gitar*, or like the *Viol*, or *Violin*: but then, Sir, what think you of the *Dulcimer*, which is a *speaking thing*, without ever being a *stopt dumb thing* at all?

And if I don't think the dazzling glory of this *new reveal'd excellency* sufficient to confound all my assignment of the Notes to the Lute, instead of the Tableture, and those incomparable advantages, which I shew'd to be their consequence (and he hath not the least impeach'd); then must it be imputed to my blind stupidity in not perceiving the worth of a *new reveal'd excellency*.

Now, Sir, the *Essayer* having a mind to be cross, Ple tell you what he says. That though the *Observer* did prove the *Harpsechord* and *Organ* to be something a greater compats than the *Lute*, and the *Viol* or *Violin* to humour a loud or soft Note, which the former were not capable of, the *Sagbuts* and *Cornets* to continue a sound: Yet he  
did

did not prove, that those Excellencies which were separately the credit of other Instruments, were not here united into *one*, to consummate the perfection of the *Lute*: which was my assertion from those various passions it does excite (*Essay* p. 60.). Nay, and that he may be altogether as ill-natur'd as the *Observer*, he suspects that *new-reveal'd excellency* to be only a *treacherous discovery of its imperfection*.

P. 37. Whatsoever the *Lute* gets by the shift, 'tis clear the *Master's* utterly undone. For by my happening upon the pitiful unmasterly *Arrons Gigue*, for an example to shew the falling or rising of an Octave, the two Notes remaining in the same place with a different Letter (as comes to pass twice in that Lesson). Therefore all people must conclude that same *Arrons Gigue* to be the supreamest Master-piece which ever the eminent Mr. Rogers plaid or compos'd for the *Lute*; and so Mr. Rogers is *abused and undone*.

Well, Sir, but how if people won't conclude so? then I suppose 'tis no *abuse*, and the *Observer* *concludeth* nothing to his purpose.

But

But I know something a little more to my purpose; That this very eminent Mr. *John Rogers* can assure the *Observer*, or any man else, That he hath seen a suit of Lessons excellent and difficult beyond exception, upon that pleasant tuning proposed in the *Essay*, writ according to the *Universal Character*, and from thence play'd upon the *Lute*. Which looks a little like that paltry argument whereby *Zeno* confuted the Philosopher, That there might be such a thing as motion.

Thus, Sir, *I abused Mr. Rogers, abused the precious memory of Mr. Simpson*: nay, in the very first line of his Book, the *Observer* lays down, That the whole *Universal Character* was *Abusiveness* in the abstract: but I know one lusty Abuse in the concrete, for which I would be loath to exchange all the Abuses in my Book.

That unparallel'd affront committed by the *Observer* in his Dedication; where he makes those Gentlemen who are employed in the Sacred Service of His Majesty's Chappel, to be Patrons of his *Ribaldry and Railing*; whereby he has so far libel'd their Reputations, as to make the world believe, those Ad-  
dresses

dressles to be most acceptable to them, which were presented in the basest language.

Certainly it had been more proper for him, when he found his stomach so foul, and his gall to overflow, rather to have called for his *Bason* to ease himself, than his *Ink-horn* to make a Present to persons of such Place and Ingenuity.

And indeed, nothing could have abated that true respect I bear for any person that pretends the least Service to their *S. Majesties*, but that necessity which now lies upon me in replying to those *Observations* in which the Author has so basely abused, not so much me, as his own *Royal* fellow-servants.

P. 38. That which remains, is only a blind business of *translating a Greek Alstedius*; which I must confess not to understand, no more than our *Observer*. Does he mean *out of Greek*, or *into Greek*? neither of which has ever been done yet, that I ken off; therefore *riddle my Riddle*. And then for that stinking story that savours of some old *Onion-like* Fornicator, with his *gray-head* and *green-tail*; I dismiss it as altogether unanswerable.

But



But since the *Observer* hath been so liberal as to bestow two Copies of Verses upon me, I will borrow one to re-pay him, out of that excellent *Epigrammatist*, *Val. Martial*, lib. 3. *Epigr.* 43.

*Mentiris juvenem tinctis, Lentine  
capillis*

*Tam subito corvus, qui modo cygnus  
eras.*

*Non omnes fallis, scit te Proserpina  
canum,*

*Personam capiti detrahat illa tuo.*

And therefore how unbecoming such things are, will be an easie consequence; which if I had the least inclination to Poetry, I would translate; but at present I shall remit the *Observer* to his Friend *J. Philips* for construction.

P. 39. To conclude (says he), The experience of those young men (children, long since His Majesty's happy restoration) who have attained to that eminency in Musick by our Scale, will convince him, there is no necessity of taking up a man's whole life in the drudgery of that Science.

But Sir, I'll e'en resolve for once, *as the Observer resolves*, That I won't be convinc'd. For these excellent young men before his *Majesty's* happy return, did (many of them) perfectly understand the Rudiments of Musick; and have for these dozen years since, been constantly encouraged by the favours of a gracious Prince's Court, assisted by the lively Instructions of the most excellent Masters, but much more by their own natural *ingenies*, in that continual employment to which they had dedicated themselves: so that I will not be convinc'd, however these persons are indeed excellent and incomparable, That therefore Musick hath been always of very easie attainment to such as take it up only for a recreation or pleasure; or that there is no drudgery in the Principles of this Science; which was my Assertion, and ought to have been his Consequence, if he would have made his very concluding Conclusion any thing to the purpose.

There is one scrap of his Argument still behind. These Gentlemen *attain'd to that eminency in Musick by our Scale*. Therefore, Sir, I suppose this  
Scale

Scale is the *causa sine qua non*, of their eminency. 'Twere pity but this Scale was cut in Aablast, and shew'd amongst the Tombs.

But I am apt to think, they came no more to be eminent for having learn'd this Scale, than the *Macedonian* conquer'd the Eastern world, because his name was *Alexander*; or that any man whose Name is *Alexander*, is now able to conquer the world: though 'tis probable, that dreadful Name is still more like to make the *Assaticks* run, than the uncouth words of the *Gamut* are to inspire a man with Musick.

Well, Sir, I have staid so long upon this Argument, till I find it has at last calv'd a *Parentthesis*, and this *Parentthesis* takes after its Dam, and is argumentative too. *This Scale is the only Universal Character, by which all People, all Nations, and Religions converse.*

Now, Sir, if it were not for the abusiveness of the thing, *Experiment*; I would lay a suit of Lessons of the eminent Mr. *John Rogers*, in the Character he plays them, before the *Observer*, to be performed upon the Organs. But that's, alas, too abusive. 'Tis long since that the Lute hath abandon'd

the difficulties of the Scale, and so lost the *Observer's* favour and knowledg.

But, Sir, if all men learn the *Gamut*, then the *Gamut* is an universal thing, and all men have the *Gamut*: So if all the Nations of *Europe* learn *A B C*, &c. then the Alphabet is an universal thing; and so all the Nations in *Europe* have *A B C*, &c. And so, and so 'tis impossible to prove, that there ever was any confusion at *Babel*, or need of any present agreement, because the rudiments of all Nations are the same both for their Languages and Musick.

Now I give the world joy of this happy agreement; for I profess 'twas the first time I was well satisf'd in it. Though I still doubt, that the different Nations spell various syllables with those universal Letters, and have got a *confounded* trick, to call the same thing by different names, that I can't for my life understand them, unless I put my self to the trouble of learning them all without book.

And I am also a little doubtful, that the Musicians do take out of their *Universal Scale* five different lines for every different part, and so the Notes stand in different places, that though I  
should

should know their scituation in the *Mean*, yet they would all give me the slip, when I came either to the *Base* or *Treble*. So that all the *universality* the *Observer* can pretend to, is, that all the world is troubled with *universal variations*.

Let us consider, All men hitherto play in *F fa ut cliff* for the *Base*, therefore *F fa ut cliff* is an universal Character; all men play in *C sol fa ut* for the *Mean*, therefore *C sol fa ut Cliff* is an Universal Character, exactly the same; as, because all *English* or *French*-men speak *English* or *French*, whether they be in *Europe* or *America*, therefore *English* and *French* are two Universal Characters.

But how absurdly he fetters a different Universal Character to each particular part of Musick, is apparent to any that understand the nature of the thing. As though 'twas no matter how great the difference and confusion were, so long as they were Universal, and all men agreed them to be Universal.

Which is one of the most slippery quirks I ever met with in my life, to prove, *That an Universal Difference*

would make an Universal Character, as well as an Universal Agreement.

That noble design of reconciling Languages, may something discover our intentions, where to all Nations one thing must have only one and the same Character; that when any person of what speech soever sees it, he may yet apprehend what is intended thereby, though each man will still call it after the custom of his own Countrey.

Thus if by one Harmonious writing we place the Notes of every Octave and Part in the same situation, each Voice and Instrument will have a propriety therein; and by being able to play or sing any one part, we shall be able to play or sing in all parts, as you may see more at large in my *Essay*.

And there is very good reason it should be so: for as a Tune is the same Tune, whether sung in *Base*, *Mean*, or *Treble*; so in each of them the Notes should be all placed upon the same Lines and Spaces.

Having now made some particular return to every Argument or Pretence I could find in each page of the *Observations*,

*vations*, I can't but think how he'll wince and fling at *Mathematicks* for the future, how he'll laugh at *the nature and reasons of the thing*.

But the Theory and Practice of Musick are fastned together by so strong a Chain of Consequences, that I would advise him to consider these following Propositions, before he make himself ridiculous.

### The Five Propositions.

I. *That Musick consists in Proportions, and is subject to Arithmetical Laws.* Which all learned Musicians in all Ages of the World have asserted.

II. *That the first and most natural division of Musick is into Octaves, where the Notes and Half-Notes always circulate in the same order:* As is demonstrated by Practical Experience as well as Speculative.

III. *That the Rudiments of learning Musick ought to be agreeable to the nature of the Science.* Wherefore we cast away those insignificant hard words of the *Gam ut*, which proceed according to *Sixths* and *Fourths*, retaining only

the circular Alphabetical Letters for every Octave, and the Monosyllables *Mi, fa, sol, la*, to signify the Proportions.

IV. *That 'tis most easie, as well as most natural, by one perpetual constancy, to place the same Notes of every Octave, in the same lines and spaces, that the numerous variations of Cliffs may be avoided.*

V. *That since in this one Universal Character of Octaves, we may comprehend all parts of Musick, 'tis needless to engage in those difficulties which encrease our trouble, and confine our knowledge to a lesser compass.*

I have expos'd these Propositions to the Observer's consideration, out of a grateful requital, because he so generously confess'd the one Objection upon which he refus'd my whole Book; & if he can but confute these *Pragmatical Propositions*, I will be so well satisfied, that he shall not need to answer one word of my Vindication besides.

But I confess, I do not yet think myself confuted, by his alledging an absurdity, which is five times more considerable his own way; or by shewing  
that



that I make use of two natural *Phænomena* of Musick; which is all, with a little scurrilous raillery, he pretends to oppose against my whole *Essay*; where in the Contents I had sum'd up so many advantages, which he could not in the least deny to be consequents of it.

Had I, Sir, sooner understood what thoughts the sober and ingenious part of the world entertain'd concerning the *Observations*, I should not have troubled you to read, nor my self to write a *Vindication* from them; which I have lately received a much better account of from a more Honourable hand, and beg your permission to adjoin it. I am,

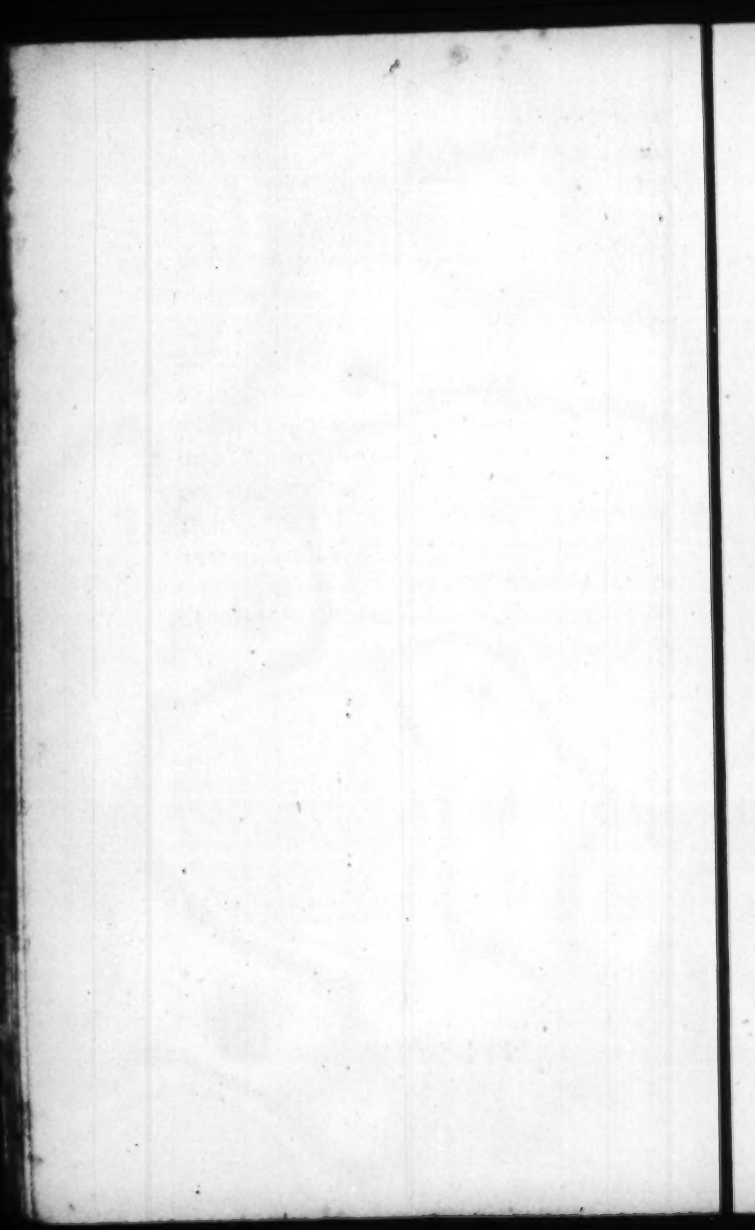
S I R,

June 1. 1672.

Your most humble and most  
obliged Servant,

THO: SALMON.

F I N I S.



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To Mr. T. S.

S I R,

**H**AVING received considerable advantages from your *Musical Essay*, &c. I was much concern'd to see so happy a Design so scurrilously traduced. But the abusiveness of the Language sufficiently bespeaks his spite to your Person, rather than any sober dislike of your *Essay*; that it is plain his design was not to return an *Answer*, but a *Libel*; and when he

he had bark'd, and grin'd,  
and shew'd his teeth, his fear  
kept him at a distance, so that  
though he wrote an Answer,  
yet was afraid to meddle  
with the Controversie.

But your Credit is too  
sacred to be be-spatter'd by  
all his Ribaldry; and by  
throwing dirt at a person of  
so unblemish'd Fame, he only  
dirty's his own fingers. I hope  
you will laugh at, and con-  
remn his malice, and by no  
means think him worthy a  
Reply. I am confident, there  
are few that have read both,  
that expect one; I am sure  
they cannot, if they under-  
stand either. And

And as for *Tapsters* and *Drawers*, the great admirers of your worthy *Adversary* ( who think, he hath utterly baffled all your *Musical Essays*, out of *Hudibras* and the *Accidence* ) you need not much care for satisfying them; especially since there is no question, but that a man of an ordinary capacity might so improve himself in one week's time at *Billingsgate*, as to answer sufficiently his most substantial *Objections*.

And, really, some of it is so nasty, that a modest man would be afraid to  
touch

touch it with a pair of Tongs; and its nothing but use that hath made himself not ashamed of it; you may see the same page divided betwixt *Scripture* and *Ribaldry*; Lust got into Paradise, and the Goat once more upon the Sacred Altar, as if he had meant to droll Religion out of the world, and revive the Worship of *Cotytto's* Temple.

His 38<sup>th</sup> page hath words so nasty, one would have thought he had spoken through a Clyster-pipe, and like the *Apocryphal* Beast, 2 *Esd.* 11. 10. *the voice had*  
*not*

*not come out of his bead, but  
the midst of his body.*

As for his whole Book,  
he himself confesseth, p. 27.  
one third part of it to be no-  
thing to the purpose: And  
of the *poor Thirteen Leaves*  
that remain, I find upon just  
account, *That they are stuff'd  
with II dull Copies of Verses,  
XXIX merry Proverbs,  
III Scraps of Latine, IV Sen-  
tences of Scripture, A Bawdy  
Story, A Sacred Anthem, O  
bone Jesu, &c. mixed in a  
general heap of Nastiness.*  
Besides many pretty Quiblets  
and smart Rhythms, that come  
in as luckily, as if he  
would

would have *cap'd Verses with you.*

He scorns to have one Period depend upon another, but will have every Sentence set up for it self; and truly the Book is nothing but Thrums and Shreds, which being stitch'd together with blew Thred, look like a Taylor's Apron, or a Fool's Coat.

I find his very first Sentence, *line 7* ( as well as many other ) to be such pitiful Nonsense and false English, that I should have left him, as a very Dunce, to the correction of the *Rod* and *Ferula*,



*Ferula*, had he not told me in the next page, that he understood the degrees of Comparison; yea, and that moreover he had once learn'd the Syntax; and again, p. 31. that he happily remembred the definition of a Noun, to be either seen, felt, heard, or understood: which 'tis strange he should pretend to, and yet take falsity, insignificancy, and contradictory, for three Noun Substantives, p. 1.

Which truly may well be, since Musick is the only thing, where he can do more than pretend; though herein his Objections are so insignificant,

significant, that, were it not for that genuine malice, wherewith he always writes, I should have thought you had hired him to have credited your *Essay*.

Some of his Objections only shew the natural advantages which Musick obtains by your design; others are so contradictory, that they fall together by the ears among themselves, like the *fighting-race* of Cadmus's *Serpent's teeth*; and you need only look on, for they naturally destroy one another.

And really, a short expectation

Station is requisite, and will be sufficient : for, though I scarce know any new thing ever proposed, but it always met with some angry Antagonist ; yet the true nature of the thing, and the greatest conveniency, have, in spite of all opposition, at last gain'd a general acceptance.

One that has had but a small insight into Musick, may easily perceive, how, ever since the days of *Guido*, 'tis continually altering into a greater ease, as well as excellency. Musicians have not long cast off those perplexed distinctions of *Mood*,

*Time, and Prolation, the Ligatures of the long Notes, with the strict observance which way they wagged their tails; and many more troubles they are now unwilling to undergo, which you may read more of in Mr. Morley.*

But I remember particularly in his Second Part, p. 104, he gives a more perspicuous way of pricking Canon: *And this (saith he) I thought good to shew you, not for any curiosity which is in it, but the easiness and commodity which it hath; because it is better than to prick so, as to make one sit five or six hours*  
*beating*

beating his brains to find out the following part. But such hath been our manner in many things heretofore, to do things blindly, and to trouble the wits of Practitioners.

As I know *Musicians* are now more ingenious than those resolute *Blades* whom the good old man had just cause to be angry at; so I do not know of any *Persian Statute* that has be'n since made to forbid them to accept of any thing that shall be proposed for the ease and advancement of *Musick*, which is the present controversy.

I am a little more con-

cern'd in that doughty Objection, where he destroys your Reputation in Musick, because you once studied Physick.

Pretty subtle! *Packolet's* Horse had a wooden Peg in his head, therefore *M.L.* must needs have a crack in the place where the Peg should have been. I appeal to any sober man, Whether this be not as rational a conclusion, as can be drawn from the other in disgrace of your Book. For had your Adversary read *Plato*, or *Athenæus*, *Porphyrie*, or *Jamblicus*, the excellent Physician *Celsus*,

*sus*, or amongst the Moderns, *Paracelsus*, &c. he would have met with those that studied Musick upon the very account of curing Diseases; and that *both* consist in making and producing Harmony.

He might have remembered (if he had ever known it) that the Ancients were so sensible of this, as to make the one God *Apollo*, Patron of both the Sciences. But alas! *Don Quixot* and *Rib-lais* have wrote nothing of the Subject, and therefore I hope you will pardon the mistake.

So that in good earnest, had this Author any such learned design, as I have met with in a Pamphlet that was wrote in our late Warrs, where the Author ingenuously confessed, That he wrote that only to make the number of his Books just Two-dozen ; or else had he designed to have begg'd the pity of the World, by discovering his nastiness and ignorance, as Beggars expose their Ulcers to raise compassion ; I say, had either of these been his reason, I should have applauded his design : But for a man, when he  
 raves,



raves, to think himself serious and rational; nay, and to be angry with every body else, that will not think so too, is certainly the grand distemper of *Bedlam*, and too plainly shews, that the poor man wants *trepaning in the Peg-place*.

But I'll tell you what is a great design of his, and which most about *London* are sensible of, That he takes upon him to be a *general Confounder of all Musical undertakings*; in so much as he never wrote any thing in his life, but in contradiction to some other men, who

who would fain have known something as well as he; but he resolves they sha'n't, and therefore whoever pretends, must justly suffer.

If any man speak of the Theory of Musick, Have at him! In his Epistle to Mr. Simpson's Compend. He is one of our New Lights (of which this Age hath been monstrous fruitful). He is a Speculator how many Hairs-breadths will reach from the top of Paul's Steeple to the Center of a Full-Moon; and demonstrate, That the thousandth part of a Minute after, there will be so many thousand more Hairs necessary

*necessary, by reason of the Earth's or Moon's motion.*

And hereby he thinks that he has so undone all Mathematicks, as no Gentleman will ever after study a Science which is so despised and droll'd upon.

And for Practical Musicians, he is also in as great a rage at them too, when ever they lye in his way; witness his *Little Consort*, and that fury he was in for his unfortunate Musick, *April 1. 1666.* where he is so severe upon those Gentlemen that were performers of it (however it suited best with his occasions

ons to commend them in his Book against you), that he plainly tells them in his printed Vindication, *That it was not his business to find Eyes, Ears, or Honesty, for any; or to answer for other mens faults:* And then roundly concludes; *In fine, this Vindication offers at no more, than denying those to be judges in Science, who are ignorant of its Principles.* Thus the Dictator.

So that whether Speculative, or Practical, no man must judg but himself; though how unfit he is to judg of the nature of Musick, who understands nothing of a Proportion

portion wherein it consists, I leave *even himself* to judg.

I must again renew my Entreaties, That since all sorts of persons have hitherto despised his Raillery, you would not give him occasion to be proud of an Answer; or have to do with a person who is of such a defiling Fancy, that can turn the bare Letters of the Alphabet into Bawdery, and make the most obliging page in your Book to be an abuse of some deceased Patriot.

I have read a story of *Agamemnon*, that he kept his (otherwise lewd) *Queen* chaste for

for ten years together, only by the graveness of the *Odes*, he enjoyn'd her to sing and play till he return'd. I have nothing to entreat of your *Antagonist*, but that he would compose some such *Odes* for *his own use*; and that you would let him alone in that most necessary employment, since that all persons are satisfied, His Design has ever been to *discourage* Musick, yours to *advance* it.

Norwich, May  
28. 1672.

Your Friend and  
Servant,

N. E.

